CLAIMS

1. A microchamber for nerve cell culture, which comprises a plurality of electrode patterns on a substrate for measuring a potential change of nerve cells, a plurality of compartment walls over the patterns for confining the nerve cells in a specific spatial arrangement, and an optically transparent semipermeable membrane laid over the compartment walls.

2. The microchamber for nerve cell culture according to Claim 1, wherein the electrode patterns are optically transparent electrodes.

3. The microchamber for nerve cell culture according to Claim 1 or 2, wherein the electrode patterns are at least three electrodes capable of carrying out measurement independently.

4. The microchamber for nerve cell culture according to Claim 1, wherein regions of the cells separated by the plurality of compartment walls are at least three.

5. The microchamber for nerve cell culture according to any one of Claims 1 to 4, wherein with regards to the electrode patterns and the regions separated by the plurality of compartments, the electrodes correspond one-to-one with the regions.